

Bardon Vectis
An outline of the history of quarrying and brick
making on the Isle of Wight until 1939

Part 1

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Writing his *Topographical Dictionary of England*, in 1833¹ when the science of geology was still in its infancy², Samuel Lewis describes the geological complexity of the Isle of Wight:

The numerous strata of various kinds and formations, and exhibiting great diversity of position, of which the Isle of Wight consists, form a remarkably rich field of study for the geologist. At Alum-bay, at the north-western extremity of the island, is found a vein of white sand, in great demand for the glass-works of Bristol and Liverpool, as also for others situated on the western coasts of England and Scotland, and in Ireland³. Eastward of this, along the northern foot of the downs, grist or quarry stone, of a yellowish grey colour, and very porous texture, is found in detached masses, and used for building. A strong liver-coloured building stone, rising in cubical masses, encrusted with a brownish kind of ochre; and enclosing specimens of rich iron-stone, occurs on the southern side of the island: a rough calcaceous freestone is frequently found in the marl pits, in loose detached pieces. Eastward of Staple's heath, and northward of Arreton downs, a close grey limestone is raised, the beds of which are separated from each other by small layers of marine shells, cemented together by alum, that substance being well known to pervade the western parts of the island. Freestone is sometimes found under marl in the northern districts of it: a plum-pudding stone exists in large quantities near Sandown fort, and is much used for paving and flooring. Potters' clay occurs in great variety, in different parts of the county; and ochres of divers colours in the Isle of Wight.

Pevsner⁴ notes both the geological interest and the suitability of the island's limestone for building:

On the Isle of Wight there is some good limestone such as those of Binstead, west of Ryde, and Quarr, near by. It can be seen both in local buildings, and further afield, but still in Hampshire, in Winchester cathedral. It is interesting and unusual among limestones in containing a rich assemblage of fossilized *freshwater* organisms. Most, in fact virtually all, other British limestones are of marine origin.

The Roman historian Suetonius recounts the conquest of the Isle of Wight by the Emperor Claudius in AD 43, hence the appropriateness of the Company name *Bardon Vectis*, *Vectis Insula* being the Roman name for the island. It is, too, with the Romans that the history of the systematic quarrying of stone and the manufacture of bricks and tiles on the Isle of Wight begins.

Carisbrooke Castle is generally thought of having been built at various periods between the 12th and the 16th centuries, with further substantial additions being made in the 19th century. The remains, however, of a masonry wall have been traced pre-dating the castle's Norman work, leading to the suggestion, and it is no more than a suggestion, it is of Roman origin⁵. The authenticity, however, of the ruins of the Roman villa partially excavated in the grounds of Carisbrooke vicarage in 1859 is indisputable⁶.

¹ Samuel Lewis, *A Topographical Dictionary of England*, London, 1833.

² The Geological Society of London was founded in 1807, whereas the Society of Antiquaries was founded in 1717, and the Royal Society in 1662.

³ White, *op.cit.*, p.398, considered the this 'white shining sand' to be one of the Island's two natural curiosities, the other one being copperas stones, 'gathered in heaps on the south shore, and occasionally sent to London &c for the purpose of producing the several species of vitriol. Copperas stone, the former name of iron pyrites or Marcasite, and was used 'in in the arts or medicinally'.

⁴ Nikolaus Pevsner and David Lloyd, *The Buildings of England: Hampshire and the Isle of Wight*, Harmondsworth, 1967, p.72.

⁵ Pevsner, *op.cit.*, p.739.

⁶ So too is that of the Roman villas at Newport, Whippingham, and Brading,

But be this as it way, one is on more certain ground with the coming of the Normans. The place-name of *Quarr* near Ryde, according to Ekwall, can trace its ancestry to 1155 when it appeared as *Quarraria*⁷. It is derived from Middle English, by way of Old French *quarriere*, from medieval Latin *quarraria*, denoting a quarry. Ironically the modern Benedictine Quarr abbey is built entirely in brick. Its Cistercian predecessor was founded in 1131 and was built in stone from the local quarries, as was Carisbrooke castle. Mention has been made of its use in Winchester cathedral, and a charter of William II granted Walkelin, Bishop of Winchester:

half a hide of land in the Isle of Wight for the building of his church, just as my father⁸ at his death⁹ had granted it to him for the good of his soul. Reserving my rents, I have given him licence to dig for stone not only there but also throughout my land on the island, in open country, and in woodland, that is if the woodland is so small that the horns of a stag can be seen going through it¹⁰..

Quarr limestone was also used in the late 11th century to build Canterbury and Chichester cathedrals.

John Speed the cartographer and historian, 1552?-1629, besides observing that the air of the Isle of Wight was 'commended both for health and delight' and that the longevity of its inhabitants was unaccompanied by the signs of the decrepitude that marked the elderly elsewhere in Britain, noted once again that there was a source of good limestone for building at Quarr, and that the stone houses of the island's inhabitants were the cause for comment by visitors.¹¹

However, by the time Speed made his comments the quarries at Quarr were no longer producing the best quality stone and their pre-eminence had been displaced by the beach limestone quarries at Bembridge. Here the stone was easily accessible and could be conveniently transported by sea. It was particularly suited for building on account of the manner in which it splits into blocks along its bedding planes. Thus, in 1641, Col. George Goring, then governor of Portsmouth¹², wrote to Sir John Oglander¹³ of Nunwell for information about acquiring stone from below the high water mark at St Helen's for the repair of the defences of Portsmouth. The influential Worsley family of Appuldurcombe acquired a beach quarry at Whitecliffe Bay in the 17th century and their account books make mention of the 'Rubble Stone from Binbridge Clifts'¹⁴.

From the mid 16thC the maintenance of the Island's roads became by Act of Parliament the responsibility of individual parishes. Surveyors of the Highways were appointed annually at the Easter Vestry with powers to raise both labour and materials for the upkeep of the roads. The work was paid for by raising a local rate and for this reason the surveyors were often reluctant to initiate road works, however necessary. For these repairs gravel and broken stone was in constant demand.

The whole process is illustrated by the 18th C accounts of the Surveyor of the Highways for the parish of Whippingham. Labourers had to dig the gravel needed to repair the roads, and farmers had to

⁷ Eilert Ekwall, *Oxford Dictionary of English Place-names*, 4th edition, Oxford, 1960.

⁸ *Ie* William the Conqueror.

⁹ In 1087.

¹⁰ TWT Tatton-Brown, 'Building Stone in Canterbury, c.1070-1525' in David Parsons, ed., *Stone. Quarrying and Building in England AD 43-1525*, Chichester, 1990, p.72, citing Galbraith, 1920.

¹¹ Nigel Nicholson and Alastair Hawyard, eds., *The Counties of Britain. A Tudor Atlas by John Speed*, London, 1988, p.92.

¹² Under its Royalist Governor, George Holland, 1608-1617, Portsmouth was 'weakly garrisoned and badly fortified' and fell to Parliamentary forces in 1642.

¹³ The diarist Sir John Oglander, 1585-1655, was born on the Isle of Wight at Nunwell, and lived there in what Pevsner deduced to have been 'a high stone house' [*op.cit.*, pp.755,6] and later replaced by the present handsome 18thC brick building. He suffered for his Royalist sympathies, died at Nunwell, and was buried in Brading church.

¹⁴ Internet entry by the Isle of Wight Record Office.

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provide carts to transport it. A gravel pit was hired and every so often had to be pumped out at parish expense. On one occasion the pit had to be lined with stone to prevent it from collapsing on the diggers.

The parish of Godshill elected seven surveyors, one for each ward of the parish and note was made not infrequently in the accounts that a surveyor was 'out of Pockitt' by the end of his year of office. There were regular payments for 'sharpening & laying pickaxes' as well as for providing such items as 'a drain grate', milestones, and sign posts. The standard charge for digging a load of gravel was 4d. and 3s. was the standard price for carting. A labourer was paid 2¾d for spreading a load of gravel, and a load of unselected stones cost the parish 1s, whilst 'pick'd stones' cost 1s 6d a load¹⁵. Later, to facilitate the more efficient maintenance of the island's country roads, all its parishes were 'united for the support of the Highways and Sewers, under two surveyors, for the Liberties of East and West Medina'¹⁶.

By the late 18th century raised pavements 'in the modern taste' were an indicator of a town's prosperity and of the status of its inhabitants. In 1786 Newport, the island's principal town, obtained a paving act, and thereby achieved streets which, by being 'open and airy' generated civic pride¹⁷. Brading was soon making similar claims¹⁸.

The island's newly acquired liking for the streets of its towns to be paved in stone was accompanied by the growing use of brick for its houses. Thus, in 1791 *The Universal British Directory* was able to say of Newport

the dwelling-houses are generally of brick, and rather neat and convenient than lofty or ostentatious. The taste, indeed, was formerly too low either for elegance or convenience... but the modern ones come under the description just mentioned, and which is every year improving¹⁹.

The combination of its benign climate and the improving comfort of its towns commended the island as a suitable place of resort for those seeking the benefits of the new fashion of sea-bathing. Cowes showed every sign of becoming a full Georgian seaside resort:

The great benefit experienced by many persons through bathing at this place occasions it to be much frequented by people of quality during the summer season which has induced the inhabitants to build very neat and convenient lodging-houses; and were there treble the number, they would find company to fill them; it is also on contemplation to build a large assembly-room &c. against the next season (1794)²⁰.

It was said of Ryde, but a fishing village in 1791, that

There are a number of pretty houses about this place, which are inhabited in the summer season by very respectable families²¹.

But even *very* respectable families still found that in 1820 a visit to the Isle of Wight was not for the faint-hearted.

I found the Island was not easily reached, the sailing packets were formidable conveyances to bad sailors and invalids. A post-chaise from Ryde, with a boy to open the numerous gates, and a post-boy to drive, at 1s. 6d. a mile, was expensive. Unless very provident as to provisions we ran as much risk of dying from famine, by going to the back of the Island, as from consumption²².

¹⁵ Mr Robert Martin supplied the information on Whippingham and Godshill.

¹⁶ White's *Directory of Hampshire and the Isle of Wight*, p.597.

¹⁷ *The Universal British Directory*, London, 1791, p.404.

¹⁸ 'The streets are very clean, and have been lately paved and lighted', *Ibid.*, p.409..

¹⁹ *Ibid.* p.404.

²⁰ *Ibid.*, p.410.

²¹ *Ibid.*, p.409

²² RJ Maycock and R Silsbury, *The Isle of Wight Railway*, Usk, 1999, p.9.

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In 1829 Ryde obtained the first of three acts for 'Paving, Watching, and Cleansing' what was now considered to be a town, and thereby no doubt the respectable were encouraged further to enjoy their sea bathing at this burgeoning resort.

However, the Island's highways were still little better than field tracks and the general remedy, used elsewhere, of enterprising groups of individuals seeking legislation to set up Turnpike Trusts was disdained, though in 1813 an 'Act for Amending the 'Roads and Highways in the Isle of Wight' was passed by Parliament. This authorized the appointment of Highway Commissioners, empowered to erect toll houses and charge tolls throughout the Island, whereby they could discharge their responsibility, under the magistrates, for the repair and improvement of the Island's roads. One of the first fruits of their endeavours was the surfacing of the Ryde-Newport road with chippings from the Quarr quarries in 1814. The reserves of the stone once used for building cathedrals had become so diminished and what was available so poor, that their best use was for road-making.

In 1819 John Loudon McAdam, 1756-1836, published his *A Practical Essay on the Scientific Repair and Preservation of Roads*, and this was followed a year later by his *Present State of Road-making* which ran to five editions. It was McAdam's conclusion that:

Roads should be constructed of broken stone. The surface of the ground on the track of the intended roads was to be raised slightly above the adjoining land; suitable drains were to be formed on each side of the track; it was to be covered by a series of thin layers of hard stone broken into angular fragments of a nearly cubical shape, and as nearly as possible of the same size; no piece was to weigh more than six ounces. The layers of broken stone were to be consolidated gradually by passage of traffic over the road, and the covering of the road would thus become a firm and solid platform, nearly impervious to water, and durable in proportion to the hardness of the stone of which it was made. Granite, greenstone, and basalt was at first thought best suited for the purpose; but basalt proved ineffective²³.

In 1827 McAdam became Surveyor-General of Roads and the state of the country's roads began slowly but steadily to improve, even on the Isle of Wight, where, in 1862 its visitors, according to the *Scientific American*, none other, included the editor of the *Wisconsin Farmer*, then visiting Europe. It was his opinion that

Of all public improvements, the roads appeared to us the most remarkable. They are mostly narrow, but the smoothest and handsomest we ever saw, inclosed with beautiful green hedges all the way, substantially macadamized with a surface as smooth as any sanded garden walk, and furthermore without any of those miserable ditches which make most roads in America so unpleasant and unsafe, they afforded us constant pleasure and made our afternoon pedestrianation of 14 miles seem but a single hour's promenade in some delightful park²⁴.

The *Wisconsin Farmer* was but a tourist to whom the Island's fifty toll gates would have offered little inconvenience. But for farmers, tradesmen, and the emerging category of contractors it was a quite different matter and the removal of these gates and their tolls in 1889 was something for general rejoicing. The following year saw the Isle of Wight County Council established with the upkeep of the roads amongst its responsibilities.

The arrival of the railway from London to Southampton and Portsmouth, the opening of regular services of steamboats between the Island and the mainland, the improving roads, and, above all, a favourable climate, saw the further development of several sea-side resorts. Thus in 1860 *Black's Picturesque Tourist and Road and Railway Guide Book through England and Wales* was able to say:

'The town of Ryde is now a considerable and beautiful town, surrounded with groves, villas, and cottages²⁵.

²³ *Dictionary of National Biography*, CD-ROM, Oxford, 1995.

²⁴ *Isle of Wight Online History*.

²⁵ The population of Ryde in 1795 was 600, in 1811 1600, and in 1851 7147. Black, *op.cit.*, p.71.

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This considerable and beautiful town, however, lacked the dignity of an appropriately splendid parish church, and church going was part of the sea-side experience. The denominations were as competitive in their buildings as they were in their sermons.

In 1859 White's *Directory of Hampshire and the Isle of Wight* noted that on the Isle of Wight, 'sandstone of various kinds is plentiful; but as a building material, it has been abandoned in favour of the beautiful Portland stone'²⁶. So when a new parish church was to be built for the growing resort of Ryde, now enjoying the dignity of being a chartered borough, the services were engaged of no less an architect than George Gilbert Scott, 1811-78, and his choice of material was indeed Portland stone.

Built in 1870 at an estimated cost of £18,000, and with sittings for 1,300, Ryde parish church was seen as

a magnificent building of stone in the Geometrical Early English style, consisting of chancel with south chapel. nave of six bays, aisles, north porch and a lofty tower on the north side, with arcaded pinnacles; and an octagonal spire, relieved by dormer lights, and containing 8 bells²⁷.

The financial resources available to those who planned Ryde's Theatre Royal in 1871, and now demolished, were rather less and brick was the local architect's choice. The nearby quarries at Quarr had by now barely sufficient reserves to meet the occasional request for road chippings, and when Dom Paul Bellot designed the new abbey in 1908 he did so in brick, albeit Belgian rather than local brick²⁸.

Sandown went through similar growth to Ryde, becoming a separate ecclesiastical parish in 1847 and a civil parish in 1894 with an Urban District Council. By 1911 its population was 3,840. A pier was built in 1878 and extended in 1895. Esplanades, bandstands, bathing machines, hotels, boarding houses, nursing homes, a railway station, and 9 places of worship helped to attract visitors. In 1915 the local directory contained 128 addresses for holiday apartments.

Ventnor, where in 1809 Mr Waterworth, an enterprising Newport surgeon, discovered that the virtues of a chalybeate spring were 'very useful in the cure of those disorders which arise from nervous affections and debility', seemed all set for a career as a spa, thanks to the 'pretty cottage' he erected over the spring. Ventnor was now a place for the winter residence of invalids²⁹. Indeed, the Island as a whole began to acquire 'desirable winter residences' and was beginning to be seen as a resort for every season of the year. All good news for the local quarry masters, chalk merchants, and brick makers.

In 1881 a census enumerator recorded that Sarah Pritchard, a 51 year old widow living on the Hampshire mainland at Longparish, with three daughters and two sons to support, did so by following the occupation of a master brick and lime burner. The relevance of this for the present narrative is that it illustrates the multi-faceted nature of quarry history and how the kiln and chalk and clay pits are as much within the compass of its interest as limestone, sandstone, and granite. Some years earlier, in 1859, Richard Hobbs of Long Lane in the parish of Arreton, was advertized as 'brick and tile maker, and lime burner'. In 1881, however, James Hobbs, of Long Lane, Arreton, perhaps Richard's son, is described simply as a brickmaker, and as such appears in Kelly's *Directory* of 1915, though of Pan Lane, Newport³⁰. Lime burning has been abandoned.

²⁶ p.594.

²⁷ *Kelly's Directory of Hampshire and the Isle of Wight*, 1915.

²⁸ Pevsner, *op.cit.*, p.761, acclaimed him as 'a virtuoso on brick'.

²⁹ Black, *op.cit.*, p.70. The attractions of Ventnor did not appeal to all. In March 1850 Thomas C Wright, a London lawyer convalesced at Madeira House, Ventnor, having heard Torquay was relaxing and unhealthy though 'Life in Ventnor however is dull enough'. A year later he advised a friend 'Aberystwyth possesses few attractions as any place I know, Ventnor excepted'. Banks Archives RWB 11/1/21 and. RWB 10/1/17.

³⁰ The 1881 census also mentions Harry Hobbs, 27, of Arreton, as a brickmaker and Kelly's *Directory* of 1915 and 1927 makes mention of James William Hobbs, Long Lane, Staplers, Arreton North as a brickmaker.

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Arreton Down has been known over the centuries for its easily accessible clay, and kilns have long been part of its topography. Names such as Lime Kiln Shute have historical significance and evidence of a medieval pottery kiln has been found on the Down's ridge towards Knighton. In 1736 were found on the Down 'several ancient weapons....among them were some spear-heads and axes, similar to those sculptured on Roman altars'³¹. The implication that digging for marl had been practised on Arreton Down since Roman times is supported by the fact an early 19th C brickyard was established at Downend close to the site of a Roman villa. The clay for bricks and tiles had been locally dug and the firing done on site. The 1861 census records that Joseph Butcher, a brick-burner, was living at Downend with his wife and five children. By 1881, however, Joseph, widowed and remarried, had established a brickyard at Northwood where he employed seven men and seven boys. Brickmaking was continued at Downend by William Barton and his sons who were also Bible Christian local preachers. The yard was taken over in 1926 by the Downend Brick Manufacturing Company, employing four brickmakers who worked inly in the summer months. The company survived until 1957 when it went into new ownership and closed two years later.

Field names often commemorate brickmaking activity which otherwise would be unknown, and this is evidenced on the west bank of Medina by such names as Brickyard Butt, Upper Brick Kiln Ground, and Lower Brick Kiln Ground. These predate an 1812 estate map which shows a brickyard on the land of Werrar Farm. It was re-opened in 1866 by Albert Edward Flux whose brother farmed Werrar. Two riverside quays were built for barges to off load coal for firing and to take on bricks for the return journey to Southampton where they had a ready market. The brickyard finally closed in 1958, succumbing to the competition of mechanization, rising transport costs, and dwindling supplies of suitable clay.

The architect John Nash, 1752-1835, built East Cowes castle in 1798 as his country house and acquired the Lower Hampstead estate on the west side of the Newtown Creek in 1803. He later built Hampstead House, established a brickyard, and in 1816 built Newport's handsome Town Hall in brick and stucco. In 1832 a tramway was built from Hampstead House to the brickworks which were served by its own quay. Gravel and timber came from Southampton and Lymington by sea, the returning barges carrying bricks for mainland builders. This brickyard was still working in 1863.

When Lower Hampstead yard closed, the three Prangell brothers, who already ran a brickyard near Lymington set up a yard at Fish House Point, commemorated by Brickfield Farm House. This brickyard was short-lived and was destroyed by a severe storm in 1866. The brothers then moved their enterprise to Lower Elmsworth, where they built a two chambered kiln on the edge of Clammelkin creek. The bricks were taken by barge to Shoreham, Littlehampton, Chichester, Portsmouth and Southampton. Thomas Henry Prangnell advertized as a brickmaker in Kelly's *Directory for Hampshire and the Isle of Wight* in 1915, but ceased operating soon after.

In 1770 an Act of Parliament was obtained 'by the principal gentlemen of the island' to establish

one general house of industry for the whole island. The plan was adopted, and carried into execution at very great expence. The building for this purpose is erected in the forest of Parkhurst, near Newport, and contains generally about five hundred paupers³².

Pritchetts, a brickmaking family from the Hampshire mainland, won the contract to supply bricks and tiles for the building and set up a brickyard nearby. After completing the Workhouse, Pritchett set up another yard at Kitbridge to supply bricks and tiles for the erection of Parkhurst Barracks. In 1800 Pritchett and his son George opened a yard at Bierley near Niton. Other Pritchett yards followed at Newbridge, Wellow, Ningwood, Tapnell, Gurnard, Cowes, Northwood, Sandford, (near Godshill), Gunville and Rookley. In 1881 William Pritchett³³ who lived in Shalfleet at Pallance Farm, besides employing 3 men and 3 boys on the farm, employed a further 9 men as a brick and tile maker. Sons and grandsons followed in his footsteps with yards at Northwood and Rookley. The brickworks at Rookley survived until 1974, when, as the last remaining yard on the Island, it closed.

³¹ White's 1859 *Directory of Hampshire and the Isle of Wight*, p.664.

³² *The Universal British Directory*, London, 1791, p.398.

³³ b.1837.

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In 1869 Jacob Kent of Brading, aged 33, leased a piece of land from the White Popham Estate on the outskirts of Shanklin known as Batts Ground and set up a brickyard next to the slaughter house. Here Jacob and his brothers made bricks during the summer and built rows of houses in the rapidly expanding town in the autumn and winter. In 1880 he opened a yard at Sandown at Street End, conveniently near two railway lines. His kinsmen George, 32, and George Henry Kent, 22, were also brickmakers, living in Brading, and perhaps working for him. By 1900 he had another brickyard at Cliff Farm on the western outskirts of Shanklin. He died in 1913 and Alfred, one of his three sons, took over Sandown and Cliff yards³⁴. The Cliff yard is thought to have closed by 1914, though the Sandown yard survived until 1927³⁵.

19th C brickmaking sometimes brought with it opportunities for social mobility. Houses were in great demand as the Island's seaside resorts developed. William Henry Paul was born on the Hampshire mainland in Lymington in 1856. As a young man, now a bricklayer, he crossed the Solent and by 1881 was lodging at Freshwater with Edward Chambers, also a bricklayer. He was soon to marry and had at least three children by his wife, Emma, all of whom were baptised in the local Wesleyan Methodist Chapel. In 1901 Emma is described as a lodging house proprietor, and a year later William took out a 21 year lease of the Freshwater Farm Brick Works, with a landing stage on the River Yar, paying royalties on the bricks he made and the clay and sand he used or removed, and by 1915 he was advertising himself as a builder and contractor, of Broadway, Totland. In 1927, aged 71, he was still active as a builder, and could now be contacted by telephone, on Freshwater 17.

By the late 1800s middlemen had begun to emerge, like Richard Woodward of Rookley, 'Coal and Brick Merchant'³⁶. In 1881, aged 36, he was employing 6 men, and retailing, no doubt, locally produced bricks. He was still in business in 1915. In the early 20th C the Isle of Wight Brick and Tile Company Ltd at Ningwood, the Bembridge Company Limited, joined later by the Carisbrooke Brick, Tile, and Pottery Works at Gunville, Carisbrooke which aspired to the dignity of a 'head office' in Newport³⁷ were all providing the Island's house builders with their bricks .

It is estimated that in 1900 there were only 20 cars using the Island's roads and a 1901 guide-book relates with some pride the surviving pre-eminence of the horse and carriage:

The Isle of Wight is one of the few places in the kingdom where the coach and the char-à-banc have not only survived the advent of railways, but continue to flourish in spite of them³⁸.

By 1915 their numbers had increased sufficiently to justify eight 'motor engineers' and four garages³⁹. The arrival of the internal combustion engine would soon be increasing both the wear and tear on the Island's roads and the demand for road grit, to the satisfaction of local gravel merchants. They benefited very little, however, when in 1930 the County Council purchased from the War Office the mid 19th century cliff top military road linking Freshwater and Chale. The original purpose of the road was to facilitate the movement of horse-drawn artillery along the coast facing the English Channel. In the 1920s it was tar macadamed and gravel for the process was mined from the beaches at the foot of

³⁴ By this time the lease had expired on Batts ground and was not renewed.

³⁵ It is however not mentioned in Kellys 1927 *Directory*.

³⁶ He was born 1845 in Lambeth, south London.

³⁷ Kelly's *Directories*, 1915 and 1927.

³⁸ Ward Lock, *op.cit.*,p.7.

³⁹ Kelly's *Directory* 1915:

Motor engineers.	Garages:
PC Alford East Cowes	Clark's Garage, Ryde
TB Briggs Cowes	AC Clark, Ventnor
HP Colenutt, Sandown	A Cooper, Freshwater
Coombes Brothers, Shanklin	R Stent, Freshwater
WAJ Lasman, Shanklin	
Pollard and Sons, Ryde	
AP Scott, Newport	
AR Watson, Bembridge	

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the cliffs⁴⁰. The County Council's new scheme was ambitious, involving both rebuilding and widening the road, and its completion took six years. But though it did much to relieve local unemployment, little local stone was used, the greater part coming from the Tapnell Quarries, near Chesil in Dorset⁴¹.

The coming of the railway to the Isle of Wight was resisted as strenuously as it was elsewhere. White's 1859 *Directory of Hampshire and the Isle of White* quoted William Henry Davenport Adams, an island newspaper editor, with approval:

Happily for the tourist no railway profanes the quiet of its vales. Nature is undisturbed in her loveliness; in her sublimity. The winds roam through the island-dells and storm across the island hills, that stir the white crests of the Solent, or agitate into anger the broad waters of the Channel, bear no loud whistle, no whirr of ceaseless wheels, to scare the Naiad from her haunts, or the Oread from her groves!⁴²

The Editor of White's *Directory*, however, considered he had bad news for both Adams and his readers:

Alas, the poet's dream will soon be despoiled, as Acts of Parliament are expected to be obtained in 1859, for the construction of *Railways* from Cowes to Newport, and from Ryde to Ventnor; and other lines are projected.

The Cowes and Newport Railway, five miles in length, linking West Cowes to Newport, incorporated in 1859, opened in 1862, having successfully overcome a hostile petition on its way. None of its three directors had addresses on the Isle of Wight⁴³. The Isle of Wight Railway, linking Ryde and Shanklin, opened in 1864, and arrived at Ventnor two years later, in 1866. Of its six directors, only George Young had an address on the Isle of Wight⁴⁴.

The Cowes & Newport Railway ran in isolation until the opening of the Isle of Wight-Newport Junction Railway in 1875 connected Newport and Cowes with Sandown, Ryde, and Ventnor. Unlike most of the directors of the Island's other railways, this railway was served by a more locally connected directorate.

Thomas Webster, for example, of Beechfield, Sandown, was a director who saw the commercial advantages in offering easy communications with the mainland through Stokes Bay where the railway, of which he was also a director, offered mainline connections through the London and South Western at Gosport. Jonathan Joliffe, another director, was a prosperous farmer and a successful builder from

⁴⁰ I am indebted to Jill Reilly of the Isle of Wight Archaeology Society for this information.

⁴¹ I am grateful to Mr Robert Martin for this information about the military road.

⁴² William Henry Davenport Adams, 1828-1891, 'began a life of unceasing literary toil by editing a provincial newspaper in the Isle of Wight, and while still young established a connection with the London press through such journals as the *Literary Gazette*, the *London Journal*' and *London Society*.' He made some reputation in turn as a writer of popular science, a writer for boys, a translator, and a lexicographer' [DNB]. His *History, Topography, and Antiquities of the Isle of Wight*, was published in 1856 by James Bridden of Ryde, who published, on Saturdays, *The Isle of Wight Mercury*, of which Adams, presumably, was editor.

⁴³ The chairman, the Hon Henry William Petre of Chelmsford, was the second son of the 11th Lord Petre. He was also chairman of the South Essex Railway and a Deputy Lieutenant of the County of Essex.. The other two directors had addresses in the City.

⁴⁴ Appley Towers, Ryde. The chairman, Alexander Beattie, JP, of Chiselhurst, Kent, was also a director of the South Eastern and Dover Railway Company. Born in Edinburgh and educated at Glasgow University, 'he was formerly an East India Merchant, in Calcutta, Liverpool, and London'. Joseph Bravo of Lancaster Gate was also a director of the Potteries, Shrewsbury, and North Wales Railway, and Thomas Norton, of Bolton Row, Mayfair, was also a director of the South Eastern and Dover Railway.

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Bonchurch⁴⁵. He too would see the advantages of the railway in distributing, bricks, building materials, and agricultural lime.

In 1886 it was reported that:

Powers have been obtained to construct a tunnel from a point midway between Brockenhurst and Lymington on the London and South-Western Railway beneath the Solent to the Newport and Freshwater Railway on the Island. The tunnel will be about two miles long, and will enable the journey from London to Freshwater, Newport, Ventnor and other parts of the Island to be made without change of any kind⁴⁶.

Such optimism, though still flourishing in 1901, proved unfounded and the tunnel was not built, to the great loss of the Island's quarrying and brick-making industries. However the quantities of ballast required for laying and maintaining the Island's railway tracks meant that commercial quarrying was increasingly becoming a viable proposition. Though granite and limestone chippings were preferred for ballast, chalk was taken from Ashe quarry for the Ryde and Newport railway and the Pan Down chalk pit also had a railway siding, as did the Wellow, Ningwood, Gunville, and Sandown brickyards.

In 1864 the Isle of Wight Railway used chalk as ballast, and in 1875 the Ryde and Newport Railway used both chalk and stone. Though it is recorded that in 1879 the Newport, Godshill, and St Lawrence Railway used broken stone, it is thought more likely that chalk was used. Gravel was used for ballast in 1872 by the Isle of Wight [Newport Junction] Railway and in 1882 the Brading Harbour Improvement Company used shingle, whereas washed gravel and coarse sand was the choice in 1889 of the Freshwater, Yarmouth, and Newport Railway. Though some of the Island's railways did have quarry sidings much of the gravel ballast was imported and it is known that there were ballast trains running at Brading Harbour⁴⁷.

Chalk pits were a common part of the Island's landscape, though not always appreciated by the 19th century tourist and one guide book warns the traveller making his way from Brading railway station to inspect the remains of the Roman villa that he would have to pass 'a glaring chalk quarry' on his way⁴⁸. There was though during the 19th century a growing demand for the Island's chalk:

Chalking the land where considered necessary was general on the Island, applied to the wheat stubbles at the rate of 15 to 20 tons an acre, and allowed to lie before being ploughed in⁴⁹.

According to Samuel Lewis the local chalk could also be burned into lime of good quality. In the eighteenth century the benefits of the systematic application of lime to acid soil became more generally appreciated. To this end farms acquired their own lime kilns and the great growth in the amount of cultivated farmland brought about between 1790 and 1810 by the enclosures was accompanied by a

⁴⁵ In 1881 he lived at Luccombe Farm Bonchurch farming 300 acres and employing 10 labourers, and having 27 men working for him in his building firm. William Joliffe, no doubt a kinsman, also of Sandown, was a lime burner.

⁴⁶ *A Pictorial and Descriptive Guide to the Isle of Wight*, London, 1901, p.4.

⁴⁷ I am grateful to the Archivist of the Isle of Wight Railway Company for the information in this paragraph, largely derived from the Board of Trade Inspectors Reports, held in the National Archive.

⁴⁸ Ward Lock, *op.cit.*, p.75. In 1901 it may have been James Baker, born in Jersey in 1853, who worked this chalk quarry with his eldest son, Percy. He lived at 'Lyndhurst' with his wife and five children and in 1881 was described as a quarryman⁴⁸.

⁴⁹ VCH Vol V, p.507.

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multiplication of lime kilns. Such a kiln, built in brick in the mid-19thC, and probably burning chalk from the nearby Shide chalk quarry⁵⁰, has recently been examined and described by local historians.

Lewis also noted in his observations that the Island's chalk was 'particularly serviceable as a cement under water, for which it is extensively employed'. The manufacture of cement on the Isle of Wight became centred upon the west bank of the River Medina, half way between Cowes and Newport. Here, on Werrar farm, mentioned already for its brickworks,⁵¹ at Northwood, and owned by Queen's College, Oxford, there was a water mill.

Work began on building it in 1790, but ceased three years later for want of financial support, and by 1799 it was being used as an army barracks. In 1825, however, Queen's College, Oxford leased the mill to George Ward of Northwood House, who rented it to James Westmore, a miller. But flour milling had ceased at West Medina mill by 1840, when Charles Francis and Sons, then of Nine Elms, London, obtained a lease from Queen's College and built a cement works on the site.

This development was not viewed with any enthusiasm by gentlemen who saw any invasion of the Isle of Wight by trade and industry as a sorry development;

There is no gentlemen's property between Newport and Cowes and the area had already been despoiled by the cement works... for three miles around we are aware of them and they are a great nuisance to the Isle of Wight⁵².

Roman cement, which was generally used for building in the early nineteenth century, was made by burning nodules of clay, known as *septaria*, or cement stone, in a kiln at great heat. After cooling, the resultant clinker was ground into fine powder and then mixed with water for use as mortar or cement. In the 1830s the dramatic growth in the size of London, and the accompanying need for more and more houses, made demands upon local supplies of cement and mortar which could no longer be met. This led Charles Francis and Sons to turn their attention to the Hampshire and Dorset coasts as an alternative source of septaria, and to establish their new works at West Medina Mill. At first bottle kilns were built for burning the clay, but these were superseded in time by twenty-six chamber kilns, the clinker being ground down into dust by the mill, using the tidal waters of the Medina.

Medina cement, as it was known, set more quickly than Roman cement and was used for building breakwaters at Dover, Cherbourg, Alderney, and Sandown. It was also used in the construction of Osborne House 1845-51; and in 1852 for the construction of concrete buildings at East Cowes with walls more than a foot thick. It was awarded a gold medal at the Great Exhibition and in 1856 Charles Francis & Sons were advertising

Medina Cement Concrete Buildings suitable for soldiers' huts, emigrants' dwellings, temporary churches, school houses, and workmen's cottages, all of which may be built with greater rapidity and economy than with any other materials⁵³.

But Medina Cement had to compete against the stronger Portland cement concrete discovered and patented in 1824 by Joseph Aspdin, a Hunslet bricklayer, 1778-1855. It is made by mixing finely

⁵⁰ Chalk pits could serve social as well as economic purposes, and during the reign of Henry VIII the courts for the hundred of West Medine were held at 'Westmedine le Pitte', which has been identified the chalk pit at Shide.

⁵¹ The name of the farm commemorates in Old English 'the river bank where there was a weir'. This account of the Medina Cement Works draws heavily upon a scholarly, but unattributed cyclostyled paper entitled 'West Medina Water Mill' found amongst the papers of Bardon Vectis at St George's Down. Internal evidence suggests it was written in 1981. Aggregate Industries would be very grateful for any information as to the authorship of this paper, and would like to give it due acknowledgement in subsequent editions of this history.

⁵² RJ Maycock and R Silsbury, *The Isle of Wight Central Railway*, Usk, 2001, p.17.

⁵³ This is possibly the earliest example of a cement firm advertising concrete buildings, for Portland cement concrete does not appear to have come into use for building construction until the 1860s.

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ground chalk or limestone with clay or mud containing silica and alumina. The mixture is heated to a temperature of about 1500°C, after which, on cooling, a clinker is formed which is then finely ground. For its manufacture at West Medina, chalk was shipped from Portchester and Paulsgrove, and later by rail from the same chalk pit at Shide, the 16th century 'Westmedine le Pitte', already mentioned. Clay was dug from the River Medina as well as from the mud flats at Hamble and Fawley in Southampton Water, and brought to the company's quay by its own lighter. When these sources were exhausted, suitable clay was later found alongside the mill .

Amongst other local construction works, Portland cement from the Mill was used for the construction of the Spithead Forts, and it also won prizes at several exhibitions, including a Bronze Medal in 1851, a Gold Medal at the Havre Exhibition in 1868, and the Highest Award at Paris in 1875.

Notwithstanding these successes, the Medina Cement works began to fail. The company, which in its prime employed 100 men, lacked the financial resources and commercial expertise for innovation. Declining profits were diminished further by dishonest book-keeping, and in 1871 the firm went into voluntary liquidation. Charles L. Francis died in 1873 intestate. Under new management, however, the company managed to survive, Captain Henry Francis, previously a junior partner, being re-employed as works director⁵⁴.

In 1895 the company leased part of the chalk pit at Shide and concluded an agreement with the Isle of Wight Central Railway for the haulage of chalk, using the cement company's own wagons, to the mills at Medina at a rate of 5d. a ton, subject to a guaranteed traffic of 30,000 tons a year. A spur was laid at Shide from the railway's siding, through a deep cutting and a short tunnel into the pit itself, where once the knights and yeomen of the Hundred of West Medina met for their deliberations.⁵⁵ The chalk was obtained by boring holes in the pit face which were then charged with black powder. The resulting fall was loaded by hand into the railway wagons. By 1913 the company had twenty-five of these wagons and the Isle of Wight Central Railway was charging 6d a ton for hauling them and their contents to West Medina⁵⁶.

At the works the chalk was ground and mixed with mud, brought by lighters to the works quay, from the estuary of the Medina. The resultant slurry flowed into a large settling pond. The solid matter gradually sank to the bottom, and the water drained off. The deposit was then dug out and conveyed to the drying flats, before being taken to the kilns for burning⁵⁷. The men loaded the kilns, stripped to the waist, drinking quantities of *Burgoo*, oatmeal flour mixed in a bucket with water, to relieve their thirst and the effects of the heat. Drawing the kilns after they had been burnt was just as back-breaking, and the clinker was often still red-hot. Light was supplied by smoky double wick paraffin lamps, and steam and fumes were constantly being emitted from the kiln chimneys.

A jaw crusher was used for the first reduction of the clinker, then it was ground by millstones, before being passed through a circular screen into the cement shed. Both the kiln gang and drawers were paid by tonnage, elsewhere in the works a 56½ hr week was worked at 4d an hour for labourers and 5½d an hour for mechanics.

In 1906 the company amalgamated with 26 others to form Associated Portland Cement Manufacturers Ltd, perhaps better known nowadays by the names Blue Circle and Lafarge. As part of a policy of modernization, in 1911 the chamber kilns were replaced by a rotary kiln, though some of the old kilns were brought back into use for a while to meet the demand for cement after the Great War. The mills finally closed in 1944.

⁵⁴ He combined these duties with those of Commandant of the Isle of Wight Rifle Volunteers and lived at Dodnor Lodge, *alias* Dodnor Cottage, at West Medina.

⁵⁵ RJ Maycock and R Silsbury , *op.cit.*, p.92.

⁵⁶ *Ibid.*,p.145. That year, 1913, the Isle of Wight Central Railway carried in all 40,994 tons of chalk and 10,349 tons of gravel.

⁵⁷ Coke was brought from Portsmouth in the company's steamer, the SS *Rochester*.

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Maycock and Silsbury, in the first volume of their trilogy on the Isle of Wight Railways⁵⁸, describe how the railway station at Ventnor is set in a sandstone quarry, and how the stone was used for the station and the engine shed. A desire amongst local opinion not to spoil the town's amenities outweighed inconvenience. The quarry is known to have existed since at least 1841. Tradition, however, has it that

French prisoners of war, who were housed at Bonchurch during the Napoleonic War, worked in the quarries and cut out caves that were later used by local coal merchants for their stores; certainly some of the stonework is particularly fine and it is said that some caves contain graffiti carved into the walls by prisoners⁵⁹.

In 1867 the Isle of Wight Railway Company allowed Joseph Bourne, its Engineer and Manager, £60 with which to begin the commercial exploitation of the quarry. Stone, until 1900, was supplied to the rival Isle of Wight Central Railway, as well as to builders and newly established local authorities. Henry Kemp Day, who had joined the company in 1868 and served it successively as 'clerk, book-keeper, audit clerk, and cashier' in 1888 was appointed Quarry Superintendent and Company Secretary at £200 a year.

In March 1902, to encourage trade, the company printed price lists and set up a board in the station yard announcing the presence of the '*St Boniface Quarries*'. It may have gained trade, but it would have done little to relieve the complaints made by female passengers who are alleged to have complained about the effect of the quarry dust on their clothes. From 1893 to 1922, when trading ceased on the regrouping of the railways, which on the Isle of Wight became part of the Southern Railway, the annual profit on the quarry ranged from £35 to £125, achieved in 1912 when plans were afoot for stone from Ventnor to be used on the Hampshire mainland at Keyhaven⁶⁰.

The Medina Concrete works were not without their rivals, though their careers were generally short lived. The Isle of Wight Cement Company, for example, was established at Brading in 1884⁶¹, and was sufficiently confident of its future to arrange with the Isle of Wight Railway for a spur to be built linking Bembridge with the works at Brading. The company had closed, however, by 1905⁶² when efforts were made, unsuccessfully, for their reopening. But satisfactory terms could not be negotiated with the Isle of Wight Railway for the carriage to Brading of the coal, essential for the production of the cement, and of the finished product on the return journey. Moreover, negotiation also failed to produce the hoped-for supply of chalk from an old quarry near Brading station, so important for the company's successful operation. Then, in 1912, a Sandown solicitor rented some land on the company's behalf adjoining the works, and operations re-commenced. But within two years it was reported that the company was insolvent⁶³. There was, though, to be life after death, and in 1924 the Isle of Wight Tarmacadam Company, 'Manufacturers of Tar and Bituminous Macadams and Concretes, Road Makers and Public Works Contractors. Quarry Owners' was energetically seeking local custom⁶⁴. Their registered office was Portland House, Bonchurch; their works and quarries were at Gills Cliff

⁵⁸ The Isle of Wight Railway, Usk, 1999.

⁵⁹ *Ibid*, p.49.

⁶⁰ *Ibid*. p.137. I am grateful to the archivist of the Isle of Wight Steam Railway for the information about the St Boniface Quarries.

⁶¹ One of the company's shareholders was Andrew Peterson, a retired lawyer from India. In 1879 he began building on the Hampshire mainland Sway Tower, which, when completed in 1886 was 217 ft high. Constructed of concrete, it is held to be the tallest non-reinforced concrete structure in the world. Andrews intended to be buried within the tower and that a perpetual light should signify the presence of his mortal remains within the building. This was thought to be a hazard to shipping and not permitted.

⁶² RJ Maycock and R Silsbury, *The Isle of Wight Railway*, Usk, 1999, p.118..

⁶³ Probably Mr Arthur E Greville, Solicitor, of St John's Road, Sandown. Maycock and Silsbury, *supra*, p.119.

⁶⁴ 'We understand that you are commencing jobs at Shanklin, and will probably want supplies of stone, concrete aggregate, blocks, etc. We shall be glad to quote you for anything you may be wanting. 16.12.1924. Isle of Wight Tarmacadam Company to Messrs James Ball & Son, Contractors, Victoria Road, Cowes.

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Road, Ventnor, and the company was headed by Stephen Canning Day as its managing director⁶⁵. Stephen was the eldest son of Daniel Day, senior⁶⁶ a master builder, employing 20 men in 1881, of whom Daniel junior was one, working as a stone mason. By 1901, however, Stephen was described as 'a superintendent to a builder', and his younger brother, Daniel Day, junior, as a 'houseman of carpenters'. In 1915 Kelly's *Directory* describes Stephen as Assistant Overseer of the Poor for Bonchurch and clerk to the parish council and Daniel as the local assessor of income tax and agent to the Royal Fire and Life Insurance Company. Their hold upon the affairs of Bonchurch was pretty comprehensive if their description in the Kelly's is to be believed:

Daniel Day and Son, builders, contractors, stone and monumental masons, house and estate agents.

Kelly's *Directory* for 1927 carried a discreet advertisement for 'Daniel Day and Sons, Builders' and the bold type is taken by a new-comer, the Brading Cement Co, which enjoyed, according to Kelly, such marks of modern technology as a telephone [Brading 5] and an address for telegrams [Cement, Brading]. It was part of British Portland Cement Manufacturers Limited, and the manager's address was given as Burghclere, near Newbury in far away Berkshire.

Ironically, though cement making at Brading had little long-term success, research undertaken by the Isle of Wight Industrial Archaeology Society has revealed the importance of Brading as a centre of lime-burning. The investigation of three substantial lime kilns constructed in brick in the mid 19th C, has shown that the arrangement of the site 'suggests investment in a well planned industrial operation', representing 'the largest lime burning operation yet discovered on the Island'⁶⁷, associated, perhaps, with the development of nearby Sandown and a sustained demand for lime mortar.

One of those who made great use of lime mortar was John Osborn White, a builder of Middleton, Freshwater⁶⁸. In September 1888 Hallam, Lord Tennyson of Farringford⁶⁹ granted him a license to extract chalk and burn lime from his chalk pit:

An Agreement between the Right Honble Hallam Lord Tennyson on the one part and John Osborn White of Freshwater in the Isle of Wight Builder of the other part. License of digging taking and selling chalk and marl from and of burning and selling Lime in the Lime Pit of the said Lord Tennyson in the western part of the Down called High Down at Freshwater and adjoining the Lime Pit. To keep the Lime Kiln and Shed in good repair and condition⁷⁰.

The arrangement worked well for some years and White prospered so that by 1898 he was operating as *JO White & Sons, Builders & Contractors* of Pound Green, Freshwater. It was at this stage, however, that Hallam Tennyson noticed that he had received no rent for two years for the chalk pit and he reckoned 'at least £20' was owing to him. After a warm encounter with White, he put the matter into the hands of his solicitor Ernest Gunner, of Messrs Gunner & Wilson, Solicitors, High Street, Newport, whom he addressed, in the third person singular, in December 1898:

Lord Tennyson since seeing Mr White this morning has reconsidered the letting of his chalk pit, and has decided to take the management into his own hands *at once*. He was much surprised to see the kiln burning on Saturday, after he had told Mr White to go to Mr Gunner for a fresh agreement: supposing that Mr Gunner said that it wd be well to let it to Mr White's son. Lord Tennyson hopes to keep on the present lime-kiln-burner, if he can have a satisfactory character. Lord Tennyson is sorry to disappoint Mr White, but

⁶⁵ There seems to have been but one other director, George Fielder Quinton, of Shide Cross, Newport, Born in 1868 at Newport, he was the son of a tallow chandler. The Census of 1901 gives him as being of no occupation.

⁶⁶ Surely a kinsman to Henry Day, the Superintendent of St Boniface Quarries, who was born and lived all his life at nearby Brading.

⁶⁷ The Isle of Wight Industrial Archaeology Society's web site entry 2003.

⁶⁸ He was born in Cowes in 1845.

⁶⁹ Hallam, Lord Tennyson, 1852-1928, succeeded his father, the Poet Laureate. in 1892.

⁷⁰ Isle of White Record Office JER/LTF/62.

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since Mr White said that he did not get much out of it, Lord Tennyson has not hesitated to take it into his own hands⁷¹.

Tennyson had second thoughts about the encounter and wrote again to Gunner:

Please tell me if I have done anything illegal in so acting but I really do not see why I should be paying his debts any longer⁷².

Unfortunately, Tennyson *had* acted illegally because White had other, more serious, debts besides what he owed Tennyson and his financial affairs were in the hands of the Official Receiver. The first meeting of creditors had taken place in October 1898⁷³. Tennyson was not pleased with Gunner's legal advice:

Dear Mr Gunner, I wish that you had taken the trouble to ascertain what the law was about Mr White's pit before writing to me to tell me that the pit was in the hands of the Official Receiver⁷⁴.

The Official Receiver found White no more satisfactory a person with whom to deal than had Tennyson:

The Bankrupt grossly over-estimated the value of his book debts. In his Statement of Affairs he returned the good debts £303 5s 11d. After applying for the debts and investigating the several accounts, I ascertained that £232 17s 1d should have been deducted from the above amount in respect of contra accounts and an order given in favor of a creditor some time before the bankruptcy. Many of the other accounts were disputed.

The estimated surplus from securities in the hands of Creditors fully secured was also grossly exaggerated.

The equities of some of the properties were unsaleable, and the amount I received for the remainder (£270) was, in the opinion of four of the principal Creditors who inspected the property, a fair one. The amount realised included about £20 worth of work done to one of the partly finished properties after the date of Receiving Order.

H C Damant,
Official Receiver⁷⁵.

White eventually relinquished possession of Tennyson's lime pit and kiln in January 1899 and, now operating as *White & Co, Builder & Contractor*, of Pound Green, sent Tennyson a bill for what he left on site: .

Plant & Material in the Lime Kiln & Chalk Pit.

1 barrow	5s 6d
2 planks	4s 0d
1 iron bar	3s 0d
1 hammer	1s 6d
1 howe [sic]	3s 0d
100 bricks & cartage	4s 0d
3 load pug ⁷⁶ & can	6s 0d
Lime measure	4s 6d

⁷¹ *Ibid.*.

⁷² *Ibid.*.

⁷³ JER/LTF/74.

⁷⁴ 15th January 1899. JER/LTF/62.

⁷⁵ Henry Castell Damant, a solicitor of Bedford House, Newport Road, Northwood.

⁷⁶ Loam or clay comminuted, thoroughly mixed, kneaded, and prepared for brickmaking and other purposes. Oxford English Dictionary CD Rom, Oxford, 1992.

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3 bushels lime 2s 0d

£1 13s 6d

I am offering His Lordship my plant and some material that I have taken there to keep the kiln in repair and if His Lordship would like to take it over it would about balance what I owe with the 3 bushels I supplied the estate I think I ought to be entitled to a small fee from the 200 loads that I sold to Mr Denham, Yarmouth⁷⁷.

John Osborn White now disappears from the scene but his wife Mary moved to Dartford with two of her sons who were bricklayers. The working of Hallam Tennyson's chalkpit was taken over by William Albert Gosden, a Totland builder⁷⁸.

The connection between St George's Down and the supply of stone and gravel is much older than its connection with Bardon Vectis. In the 1860s James Kingswell⁷⁹, John Flux⁸⁰, and Frederick Coker, all submitted tenders to supply 'good clean angular cracked gravel' to the Paving Committee of the Borough of Newport. Both Kingswell and Coker were obtaining their gravel from pits on St. George's Down⁸¹. Kingswell won the day, though more expensive than Coker⁸², and was soon describing himself as 'road contractor for the borough of Newport'⁸³. By 1876, however, Coker was also supplying Newport with its gravel, and describing himself as 'road contractor' as well as a farmer. From 1887-1891 his gravel came from Blackwater Down pit, owned by a Mr Blake of Birchmore.

Another source of gravel on St George's Down, more closely connected with Bardon Vectis, was Garretts Farm. From here James Small supplied large amounts of gravel from the 1820s to the 1860s, as did James Williams from his gravel pits at Staplers⁸⁴. An 1863 document names a Mr William Small, presumably a kinsman of James Small, who was the occupant of the farm in 1859, as conveying Garretts Farm to 'James Ridett, of Newport, Gentleman'. Ten years later, in March 1873, Ridett sold the farm for £600 to John Coker, of Chale, 'Public Works Contractor', and a relation perhaps of the already mentioned Mr F Coker.

John Coker immediately mortgaged Garretts farm to John Potter, Solicitor, of West Cowes for £500, to be repaid with interest within six months. This he seems to have failed to have done, and later that same year, in September, John Coker filed a petition for bankruptcy. Still described as a contractor, his address was given as Queen's Road, Dalston, and of 'Chale and Greenwich, Kent'. His creditors were offered 2s in the pound, and though he was allowed to continue his trade under supervision, his goods and chattels were ordered to be sold,

Excepting the Tools of his trade, and the necessary wearing apparel and bedding for himself, his Wife and children not exceeding twenty pounds in the whole.

A local surveyor, Edward Watts, of Castle Villa, Carisbrooke valued Garretts farm at £1064, 'inclusive of timber., with brick and slate built cottage, stable, granary, cart shed, yard and garden'. The buildings, he noted in his report, 'are not in good condition'. In July 1874 it was mortgaged for £650 and interest to a Mrs Charlotte Chasemore Kelly, a widow, of, Lynton Lodge, Clapham Park, Surrey.

⁷⁷ JER/LTF/74.

⁷⁸ The 1901 Census, however, speaks of a 59 year old William Gosden of Totland who is described as a 'general labourer and excavator'.

⁷⁹ James Kingswell, born 1831, in 1881, having moved from Brook, farmed the 240 acres of Fullingsmill Farm in the parish of Calbourne, with the assistance three labourers and three boys. He had a wife and eight children to support. By 1901 he was living at Village Farm, Crawley on the Hampshire mainland, north west of Winchester. [1901 Census.]

⁸⁰ Perhaps a member of the brick making family of that name.

⁸¹ Mr. Coker was also using 'Mr Hardley's Pit'.

⁸² 3/6d per yard as opposed to Coker's 3/4d per yard.

⁸³ *Hill's Newport Directory*, 1871.

⁸⁴ I am grateful to Mr Martin for the information contained in this and the preceding paragraph.

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Then in April 1875 the farm is found mortgaged to William Coham Turner, Esquire of Belsize House, St John's Wood, Hampstead⁸⁵. Turner was Comptroller, Tea and East India Department, HM Customs. Neither he nor Mrs Kelly seem to have had any direct connection with John Coker, and it is likely that the City accountant entrusted with rescuing Coker's financial affairs commended Garretts farm to them as a useful investment.

Coker continued to live at Chale as a contractor and to work the gravel pits on Garretts farm. Turner, for his part, set about building himself a villa in brick where the dilapidated farm cottage had stood, engaging the services of Adam Cooper, of Sandown⁸⁶. He produced his plans and specifications in May 1877:

House	£831	10s	0d
Out Buildings	£242	19s	10d
Fence & Gate	£23	10s	10d
Well 40 Feet	£4	10s	0d
Total	£1102	10s	8d

Then, anticipating that Mr Turner would have an appropriate sense of economy, added as a postscript

I think the above may be cut down, to about 950 by curtailing certain unnecessary costs and the out Buildings to be Solid Walls instead of as specified and using the Slates & Stones Bricks &c⁸⁷

The result was a five bedroomed house, but no bathroom. Decorative stripes adorned the exterior brickwork, and a stone shield on one gable bore Turner's initials and another on another gable carried the date 1880. But neither Turner nor Coker lived in the house. Turner remained at Belzize Park and Coker continued to live at Chale and in 1881 it was occupied by Isaac Trott, 44, a cowman, with his wife and three children⁸⁸. In June 1885 a certain John Clark⁸⁹ was occupying the farm and secured the agreement of the trustees of Serle's Charity to use their road to Stean's farm to give him better access to his own property. Then, in April 1887 James W Alexander is occupying Garretts farm, and agreeing, like Clark before him, with the trustees over the use of the road⁹⁰. The history of Bardon Vectis had begun.

Garrets farm was not large, but there were further reserves of gravel, as well as sand, on adjacent Steans farm which was the property of Serle's Charity. William Serle, who died a bachelor in 1596, lived at Blackwater at Stone Farm and left £100 to be used for the purchase of land, the rent of which was to be applied to the relief of the poor and needy of the parish of Arreton. With William Serle's £100 the churchwardens of Arreton purchased Steans farm, consisting of a barn and forty acres of land adjoining Garretts farm. The rent was distributed every February in the parish church to the nominated poor in the form of loaves of bread⁹¹. With a healthy dash of enlightened self-interest in 1838 the Vestry resolved that the bread for distribution should be purchased only from a baker living in the parish. Later that century it was resolved that the payments in future should be in cash rather than bread⁹².

⁸⁵ He was born 1825 at Barnstaple, Devon.

⁸⁶ Adam C Cooper, born 1833, was a man of some versatility, combining the careers of baker, contractor, and farmer, employing in all 6 men and 2 boys.

⁸⁷ Archives, Aggregate Industries F.1477.Q.9260/H.

⁸⁸ By 1901 he and his wife had moved to Gravesend in Kent, and had no connection with agriculture.

⁸⁹ Perhaps John Clark, grocer, born 1828, who in 1881 lived at 40 Upper St James Street, Carisbrooke

⁹⁰ Edward Whitehead, secretary to the trustees witnessed the agreement. He was a Newport sack merchant, born in the parish of Arreton in 1833. In the late 19th century the charity was administered and gained its income from the emerging lower middle class, builders, grocers, small scale merchants, and tenant farmers

⁹¹ Some of the 19th century Bread Lists have survived and give the names of the recipients, how many children they had, and how many loaves each family received.

⁹² It is often thanks to watchful churchwardens that some charities were not extinguished in the 18th century. There is, for example, in the Churchwarden's Book of the parish of Arreton an entry, made in 1751 'Received Mr. Gards Charity, being 8 years in arrears £2, received 6 years charity from the same Will from Princelett, £1.10s'.

In October 1888, JW Alexander leased Steans farm from the trustees of Serle's Charity, in succession to Coker who had leased it from May 1876. James Whiteway Alexander was born on the Hampshire mainland at Bramshall in 1822. He had made his way to the Isle of Wight by January 1864 when he married, it would seem, for the second time⁹³, at Godshill parish church, Mary Smith, daughter of Samuel Smith, of Bleakdown, Godshill, a dairy herdsman. Three sons and two daughters were born to James and Mary Alexander at Godshill, namely Arthur Wolfe Alexander in 1864, George Henry Alexander in 1866, Thomas Hinton Alexander in 1867, Mary Sophia Alexander in 1869, and Clara Jane Alexander in 1871. They lived at Godshill at the *Chequers Inn* which Mary kept whilst James worked as 'a contractor', a synonym at this time for being a gravel merchant and a road contractor. By 1881 Arthur Wolfe Alexander and his brother George Henry Alexander were living at King's Norton in Worcestershire with their married half brother William Alexander, now married, a letter carrier. Arthur was a telegraph clerk and George a cashier. Thomas Hinton Alexander, however, stayed at home and joined his father in his gravel business centred upon Garretts Farm which James Alexander first leased from William Turner in 1887. In 1888 he also leased the gravel pits of adjoining Steans Farm from the Trustees of Serle's Charity on a yearly lease. In 1888 the rent was £98 per annum, a royalty of 5d to be paid for every cubic yard of gravel over and above 1800 cubic yards. By 1898 the rent had been reduced to £ 60 8s 4d, and 5d was now payable for every cubic yard of gravel or sand over 500 cubic yards.

By 1892 the rising output of gravel from Garretts and Steans farms caused JW Alexander to ask the Isle of Wight Central Railway to provide a siding at its Shide station. The continuing success of JW Alexander & Sons seemed sufficiently assured to the railway company that no guarantee was sought that Alexanders would provide sufficient traffic to justify its construction⁹⁴.

William Turner knew his legal rights and it was not long before he was asserting them on behalf of his tenant James Alexander through the good offices of his lawyer son. It was all a matter of blocked rights of way and on 1st March 1898 Messrs Stallard & Turner, of 44 Bedford Row, London WC, wrote to Mr H Adams, of Priory View, Castle Road, Newport

We have been consulted by WC Turner with reference to your refusal to allow him and his tenant to use the right of way from our client's property over the field No 611 Tithe Map for the parish of Arreton which we understand you recently purchased to the corner of such field furthest away from Newport where there should be a gateway into the Newport Road which we understand is called Burnt House Lane. Our client claims not only a walking way but a right of way for himself his tenants servants and others either with or without horses cattle carts and other carriages. The gateway has been stopped. Unless we receive a letter from you by 12 o'clock noon on Thursday next the 3rd inst acknowledging our clients right of way as claimed in this letter and undertaking forthwith to reopen the gateway we shall issue a writ against you without further notice or delay.

Poor Mr Adams. He had only just taken possession of Little Pan Farm which adjoined Garretts Farm, and was anxious for good neighbourly relations. Unrepresented by a lawyer, he immediately sent a telegram to Messrs Stallard & Turner, apparently acceding their demands:

I will open gate. Letter will follow. Adams Newport⁹⁵.

The letter did follow, but in his anxiety he put the wrong date on it, an error Messrs Stallard & Turner were not slow in pointing out⁹⁶. Adams felt that Alexander had been somewhat ungracious in the manner in which he had brought the matter up:

⁹³ There was at least one son by the first marriage: William Alexander, born Andover in 1853

⁹⁴ RJ Maycock and R Silsbury, *The Isle of Wight Central Railway*, Usk, 2001, p.92. In 1882 a similar request had been refused.

⁹⁵ 2nd March 1898.

⁹⁶ 3rd February instead of the 3rd March 1898.

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I beg to say that the claim of right of way was made to open in a very abrupt way by your client's tenant in the highway.

Mr Turner for his part was minded to be conciliatory, and agreed not to seek costs if Adams removed the bank and restored a gate at once. But Adams, before doing so, thought he should put his side of the story before Messrs Stallard & Turner, for it was, on his own admission, Alexander who had removed the gate in the first place:

Gents, I will just put the facts of the matter before you & then I believe you will see with me that if there is any blame attached to any person it do not rest on myself. I purchased Little Pan Farm & took possession on January 12/98 & the gate in question was taken away about nine months ago & the opening banked upped. This is what your Mr Alexander told me he also said to me that he had taken away the gate from my land into yours & nailed three rails across from post to post. I do think he as [*sic*] acted very strange in the matter in not informing you before I took possession. On my plan there appears to be a footpath only but as I presume your client is an honourable man & would not claim that which is not his rights the gate shall be restored at an early date (next week if possible) so that will settle all disputes I hope.

Almost a month went by and the gate remained unreplaced, and Messrs Stallard & Turner were moved to write to Adams:

We expected to have heard before now that you had removed the obstruction and replaced the gate. Not having received any information on the matter we wrote to Mr Alexander and this morning received a letter from him saying that nothing has been done in the way of removing the obstruction or replacing the gate. Under the circumstances unless we receive a satisfactory letter from you by return of post with an undertaking to remove the obstruction and replace the gate within seven days we shall be compelled to report the matter to Mr Turner and obtain his instructions⁹⁷.

Adams yielded and by return of post replied:

The gate is in its place & the obstruction removed⁹⁸.

The incident is an insight to the character of JW Alexander. It was, of course, for its resources of gravel and sand that he leased Garretts and Steans farms and was concerned about his rights of way.

JW Alexander died 7th May 1899, aged 75, and was buried in the churchyard at Arreton, His widow Mary continued to live at Garretts with her daughter Mary Sophia and son in law James Hobbs, a brickmaker, and attended upon by a servant girl. Alexander protected the interests of his widow by setting up a trust to administer his estate, with his eldest son by his second marriage, Arthur Wolfe Alexander⁹⁹, his eldest daughter Mary Sophia Hobbs, and Henry Hall, a Shanklin lodging house keeper as trustees. One of the main items in the trust was Sullens farm which James Alexander had recently purchased for £2800. It adjoined Garretts farm to the east and had potential as a further source of gravel and sand.

William Turner died in 1900 and bequeathed Garretts farm to his son and daughter, Charles and Maria Turner who continued the Alexanders' tenancy. Their commercial activities expanded after JW Alexander's death and brick making was added to sand and gravel extraction. In 1901 William Whiteway Alexander, once a letter carrier, but now the licensed victualler of the Fox Inn, Halesowen, in Worcestershire, joined his half brother and sister, Thomas Hinton Alexander of Chipperwell brickyard in the parish of Whippingham, 'contractor', and Mary Sophia Hobbs of Garretts Farm, 'brick merchant', as tenants of Serle's Charity. JW Alexander's trustees energetically pursued their commercial responsibilities so that in 1902, for example they attempted, though unsuccessfully, to

⁹⁷ 29th March 1898.

⁹⁸ 30th March 1898.

⁹⁹ Who lived at 256 Albert Road, Aston, Birmingham.

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negotiate with the Isle of Wight Central Railway to carry gravel from Blackwater at the same rate as they charged from Shide¹⁰⁰.

By now Thomas Alexander was married, had four children, was living at *Chippenwell*, and the census return describes him as 'a gravel merchant's manager'. Perhaps this means that he was the manager of the family enterprise now known as JW Alexander and Sons. The size of the payroll is uncertain, but the 1901 census mentions several gravel diggers on St George's Down who could have offered the firm their labour

Mary Alexander died in 1907 and the trust protecting her financial position was dissolved. This enabled the implementation of the other provisions of JW Alexander's will so that, for example, Sullens farm was conveyed to Thomas Hinton Alexander, and each of JW Alexander's surviving children received a legacy of £371 3s. 2d.

Thomas Alexander now leased Steans farm from the Trustees of Serle's Charity in his own name, paying £50 8s 4d pa in rent and a royalty of 5d on every cubic yard of sand and gravel extracted above 500 cubic yards¹⁰¹. Three years later, in March 1912, described as 'Thomas Hinton Alexander, Esq of Garretts farm, Farmer and Gravel Merchant', he leased Garretts farm from Charles Turner¹⁰² for a term of 13½ years, expiring in October 1927. The rent was £125 pa, and a royalty of 3d was payable 'for every cubic yard of chalk dug or gotten'.

Permission was also granted to

work the lime kiln upon the said premises and for that purpose to dig or get out... so much chalk for that purpose as the Lessee shall think fit and also with liberty to dig and get from or out so much gravel as the Lessee may think fit

It was witnessed by Edgar Alexander, 'farmer's Assistant, Garretts Farm, Shide' He was Thomas Hinton's 16 year old son.

The outbreak of the Great War in 1914 caused some quarrymen out of patriotism to enlist for military service, which, of course, laid a heavier burden on older men who remained behind. In January 1916 voluntary recruitment gave way to conscription for unmarried men between the ages of 18 and 41, and in April 1916 it was made universal. Unlike coal mining and munitions work, quarrying was not deemed to be work of sufficient national importance to be declared a reserved occupation and the size of both its labour force and its output declined further. With the war over JW Alexander and Sons joined the National Scheme for Disabled Ex-service Men. This set up a roll of employers who had undertaken that at least 5% of their employees would be disabled ex-service men, and stated this on their company writing paper. This all the more noteworthy because the scheme met an overall response, both on the Island and elsewhere which was thought to be 'uneven and unsatisfactory'¹⁰³.

By 1923 company stationery was using the heading 'JW Alexander & Sons, St George's Down, near Shide IW¹⁰⁴', and development was afoot. In October 1925 Charles Turner and his spinster sister¹⁰⁵, sold Garretts farm to Thomas Alexander. Though described as a 'farmer and gravel merchant', the extraction and sale of gravel and chalk was more important to Alexander than farming. Its purchase, however, stretched his finances, if not his commercial confidence¹⁰⁶ and he almost immediately sold 'two portions' of the land to Frederick Cheek, and 'one portion', containing an old gravel pit, to the Associated Portland Cement Manufacturers Limited.

¹⁰⁰ Maycock and Silsbury, *op.cit.*, p.108.

¹⁰¹ 21st September 1909.

¹⁰² Of 22 Dawson Place, Bayswater, London W.

¹⁰³ Report from the Parliamentary Select Committee on Pensions, August 1920.

¹⁰⁴ VECTIS 1/1/3.

¹⁰⁵ Maria Helena Turner, of 46 Eversfield Place, St Leonards, Sussex.

¹⁰⁶ Thus, the 1927 edition of Kelly's *Directory* carried an entry in bold, and therefore more expensive, type: **JW ALEXANDER & SONS**, St George's Down, Shide, Newport, Isle of Wight **GRAVEL MERCHANTS**.

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Frederick Cheek was a chalk quarryman of Whippingham and the Associated Portland Cement Manufacturers Limited were, as was related earlier, the successors to the Medina Cement Company of Charles Francis and Son, who in 1895 leased part of the chalk pit at Shide. To facilitate taking the extracted chalk to the cement works, the Isle of Wight Central Railway laid a spur from its siding through a cutting and a tunnel into the pit itself¹⁰⁷.

In September 1929 the Charity Commission gave the trustees of Serle's Charity, finding the administration of the property irksome, permission to sell Stean's farm, providing it was not for less than £800 and that the transaction was completed within 12 months. The sale took place in March 1930, TH Alexander being the purchaser, and the sum agreed was £800. The trustees of the Charity bought Government stock with the proceeds of the sale and continued an annual cash distribution until 1991, when the various parish charities were consolidated. Interest is now allowed to accumulate, enabling larger grants to be made and organizations working in the parish as well as individuals have been beneficiaries. These have included the Meals on Wheels service of the WRVS, the Macmillan Nurses Fund, and the Marie Curie Cancer Care.

The purchase of Steans farm in 1930 strengthened the commercial attractiveness of JW Alexander and Sons and later that year the firm amalgamated with Bleakdown Ltd, an enterprise which had evolved from the Vectis Stone Company, founded in 1923 with Robert Sprake and E Victor Harvey as partners¹⁰⁸. A third partner was Frank Cheverton¹⁰⁹. The company name of *Bleakdown*, of course, had a resonance for Thomas Alexander from the connection of its topographical namesake with his maternal grandparents.

In the amalgamation TH Alexander retained his ownership of Garretts and Steans farms, whilst leasing to Bleakdown Limited. 'certain rights of obtaining gravel and other minerals from parts of the said properties'. It would seem that the Alexander finances were overstretched and in April 1932 TH Alexander mortgaged the two farms and Lower Shide Mill to the Trustees of the Loyal Harbourough Lodge No 4004 [Isle of Wight Districts] of the Independent Order of Oddfellows to secure £1700 to be repaid with interest.¹¹⁰

The process of mechanization continued with Vectis Stone, so that for example, a 2ft gauge tramway was laid to link the workings to a cable hauled incline. This descended to a loading bay near Blackwater Corner. From here the gravel was taken by horse and cart to Shide station.¹¹¹

Bleakdown Ltd was not the first to exploit the resources of those downs. In 1881 Jesse Rolf, born in 1848 at Carisbrooke, was living and working at Bleakdown as a gravel contractor, having moved there from Rookley. The manor of Bleakdown, lying to the west of Godshill, belonged to Christchurch Priory until the dissolution of the monasteries when it passed into secular hands. By 1881 it was in the possession of Francis Harry Atherly, JP, of Landguard Manor, one of the principal landowners of the area. In 1895 Jesse Rolf entered into a new agreement with Atherley for the lease of Bleakdown House and the adjoining land. This was renewed in 1901 with Arthur Harry Howard Atherley JP DL who had succeeded his father at Landguard Manor. In 1911 Bleakdown House and its land were purchased by John Newton, a Sandown coal merchant who, in 1923 sold them to Robert Sprake and Victor Harvey.

In contrast to Rolf's agricultural background, brewing offered the Bleakdown Ltds's partnership their particular expertise. Robert Sprake was born at Chale in 1879. His grandfather was the proprietor of the Star Brewery at Chale and his father worked in the brewery as well. By 1901 his uncle, Oscar Edward Sprake was landlord of the *Star* and proprietor of the brewery which in 1924 was sold to Brickwoods of Portsmouth¹¹². Victor Harvey also maintained the connection, being the son of Edward Harvey, a

Maycock and Silsbury, *op.cit.*, p.92

¹⁰⁸ VECTIS 1/1/2

¹⁰⁹ VECTIS 1/1/1.

¹¹⁰ It was paid off in November 1938.

¹¹¹ I am indebted to the archivist of the Isle of Wight Railway Company for the information about the Blackwater tram and ropeways.

¹¹² John [born 1853] and Arthur Brickwood [born 1854] were substantial Portsmouth brewers. John Brickwood was one of syndicate which purchased Fratton Park in 1898 for Portsmouth Football Club, founded in 1883.

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Sandown publican. Some kind of connection was also maintained with Brickwoods, Mr G. Good their Financial Director, joining the new firm as a Director and Company Secretary.

The process of gravel extraction at Bleakdown and Blackwater, and elsewhere for that matter, was still, despite the introduction of tramways, horse drawn, of course, very labour intensive, a matter of picks and shovels, wheel-barrows, horses and carts, and manual labour. The gravel, once extracted, usually had to be washed and passed through screens to grade it. There was little or no mechanization and accidents were not uncommon. Skips were loaded by hand at the quarry face and taken to the tramway where trains of some eight or so skips were hauled by horse to the processing plant. In 1930 some 800 tons a week were moved in this manner.

In November 1931, however, the washing plant at Bleakdown collapsed, and it was decided not to rebuild it, and at the same time the track of the tramway was lifted. A new plant was established at Blackwater. This new plant produced its first washed and graded chippings in September 1932 and at the same time the company offices were moved there from Bleakdown .where James Cotton advertised himself in Kelly's *Directory* as a rival gravel merchant. The new buildings at Blackwater were permanent, rather than temporary, in style and had, despite the corrugated iron roof, a modest touch of style about them, being stone built with and sash windows: the Portacabin culture was still far away.

Photographs of Blackwater Quarry in the early 1930s show that wood rather than steel supported the machinery which was unprotected and the men worked without any protective helmets or boots¹¹³. Headwear, cloth cap or hat, marked the wearer's status rather than his concern for safety. Disused oil drums had their place as building materials. Manual labour still prevailed, though in 1934 the quarry acquired its first mechanical loading excavator, on caterpillar tracks. A steam lorry now saw to deliveries¹¹⁴. The prosperity and social status of Tom Alexander, the manager at this time, is reflected in his cabriolet motor car parked outside the company office¹¹⁵.

An overall benign paternalism prevailed in Vectis Stone The company outing was the great social occasion of the year. In 1938 it consisted of an excursion to the mainland to Windsor where one of Salter Brothers' river steamers awaited them for a cruise on the Thames. A group photograph was taken of the 53 trippers and in the ordering of the group suitable prominence was given to Thomas Alexander who alone wears a panama hat. The tables in the ship's saloon are laid ready for a meal¹¹⁶

The author gratefully acknowledges the assistance he has received from the Isle of Wight Industrial Archaeology Society in general and from Mr Robert Martin, the Society's Chairman, and Jill Reilly, the Society's Secretary, in particular, in preparing this paper. His thanks are also due to Paddy Jardine, Archivist of the Isle of Wight Railway Co Ltd, to Pat Phillips, Clerk to the Arreton Trust, and to the Archivist of the Isle of Wight Record Office, Newport, who have all been equally generous in sharing their specialist knowledge.

¹¹³ VECTIS 2/2/10,11,12., and 13.

¹¹⁴ VECTIS 2/1/6, 2/1/14, 2/1/1D, and 2/1/16.

¹¹⁵ VECTIS 2/1/18.

¹¹⁶ VECTIS 2/1/19, 20.